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APHC Polyclonal Antibody

Catalog # AP68446

Product Information

Application	WB, IHC-P, IF
Primary Accession	Q9NUN7
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	31552

Additional Information

Gene ID	55331
Other Names	ACER3; APHC; PHCA; Alkaline ceramidase 3; AlkCDase 3; Alkaline CDase 3; Alkaline dihydroceramidase SB89; Alkaline phytoceramidase; aPHC
Dilution	WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/40000. Not yet tested in other applications. IHC-P~~N/A IF~~1:50~200
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20℃

Protein Information

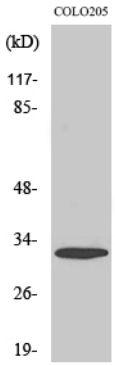
Name	ACER3
Synonyms	APHC, PHCA
Function	Endoplasmic reticulum and Golgi ceramidase that catalyzes the hydrolysis of unsaturated long-chain C18:1-, C20:1- and C20:4- ceramides, dihydroceramides and phytoceramides into sphingoid bases like sphingosine and free fatty acids at alkaline pH (PubMed:11356846, PubMed:20068046, PubMed:20207939, PubMed:26792856, PubMed:30575723). Ceramides, sphingosine, and its phosphorylated form sphingosine-1- phosphate are bioactive lipids that mediate cellular signaling pathways regulating several biological processes including cell proliferation, apoptosis and differentiation (PubMed:20068046). Controls the generation of sphingosine in erythrocytes, and thereby sphingosine-1- phosphate in plasma (PubMed:20207939). Through the regulation of ceramides and sphingosine-1-phosphate homeostasis in the brain may play a role in neurons survival and function (By similarity). By regulating the levels of pro-inflammatory ceramides in immune cells and tissues, may modulate the inflammatory response (By similarity).

Cellular Location	Endoplasmic reticulum membrane; Multi-pass membrane protein. Golgi apparatus membrane; Multi-pass membrane protein
Tissue Location	Ubiquitously expressed. Highly expressed in placenta (PubMed:11356846). Expressed in erythrocytes (PubMed:20207939).

Background

Endoplasmic reticulum and Golgi ceramidase that catalyzes the hydrolysis of unsaturated long-chain C18:1-, C20:1- and C20:4-ceramides, dihydroceramides and phytoceramides into sphingoid bases like sphingosine and free fatty acids at alkaline pH (PubMed:20068046, PubMed:26792856, PubMed:20207939, PubMed:11356846). Ceramides, sphingosine, and its phosphorylated form sphingosine-1-phosphate are bioactive lipids that mediate cellular signaling pathways regulating several biological processes including cell proliferation, apoptosis and differentiation (PubMed:20068046). Controls the generation of sphingosine in erythrocytes, and thereby sphingosine-1-phosphate in plasma (PubMed:20207939). Through the regulation of ceramides and sphingosine-1-phosphate homeostasis in the brain may play a role in neurons survival and function (By similarity). By regulating the levels of proinflammatory ceramides in immune cells and tissues, may modulate the inflammatory response (By similarity).

Images



Western Blot analysis of various cells using APHC Polyclonal Antibody